

REMARKS

Claims 1-7, 11-21, 28-34 and 38-55 are all of the pending claims, with claims 1, 28, 38, 45, 49, 52 and 53 being written in independent form.

The Examiner rejects claims 1, 2, 4-7, 12, 21, 28, 29, 31-34, 38, 39, 41-46 and 48-53 under 35 USC § 102(e) as being anticipated over US 6,777,917 B2 to Desprez et al. ("Desprez"); and claims 3, 11, 30, 40, 47, 54 and 55 under 35 USC § 103(a) as being obvious over Desprez in view of US 6,841,971 B1 to Spee et al. ("Spee"). Applicants respectfully traverse all of these rejections in view of the following remarks.

Independent claim 1 defines a method that involves (among other things) balancing the capacitors "*only when neither a correct charge nor a fault is indicated.*" That is, and with reference to the figure, the balancing of the capacitors may occur in two voltage ranges (segments 8 of the voltage curve 4) that are separated from each other. Indeed, the two balancing voltage ranges are provided on either side of a correct charge voltage range (segment 7), which is defined between a "*relatively low voltage level*" 3 and a "*relatively central voltage level*" 2 (as claimed). The claimed invention provides a balancing feature for voltages above and below the correct charge voltage range. At least this feature (as defined by independent claim 1), in combination of the other features defined by independent claim, is not taught or suggested by the prior art relied upon by the Examiner.

The Examiner relies heavily upon the Desprez reference to teach each and every feature defined by claim 1. In so doing, the Examiner cites column 6, lines 34+ to allegedly teach the claimed balancing feature. This rejection position is not convincing for the following reasons.

Desprez is directed to a supercapacitor charging method. The disclosed method involves stepping down a charging current as the voltage of the supercapacitor increases. Thus, the various charging currents may occur in associated voltage ranges. According to Desprez straightforward disclosure, however, the voltage ranges associated with the charging currents are contiguous and/or overlapped (but not separated from each other).

For example, according to the cited portion of Desprez (col. 6, lines 34+), the charging method involves 4 phases. In Phase 1, a charging current is equal to 200 A.

At this time, the voltage of the supercapacitor progressively increases. In Phase 2, the charging current remains at 200 A, and the voltage continues to increase. In Phase 3, when the voltage reaches 2.53 V, the charging current is ramped down from 200 A to approximately 55 A. At the same time, the voltage of the supercapacitor decreases. In Phase 4, the charging current is equal to 55 A. When the voltage of the supercapacitor again reaches 2.53 V, the charging current is reduced from 55 A to close to 0.

As demonstrated above, the various charging currents (i.e., 200 A, 55 A, and close to 0) are applied to charge the supercapacitor at various voltage ranges, which are contiguous and/or overlapped with each other. Certainly then, Desprez does not provide any teachings pertinent to balancing capacitors at two voltage ranges that are spaced apart from each other (and defined by three different voltage levels), as required by independent claim 1.

Independent claims 28, 38, 45, 49, 52 and 53 recite features that are somewhat similar to the ones notes above with respect to claim 1. Accordingly, these independent claims are believed to be patentable for reasons somewhat analogous to those noted above with respect to claim 1.

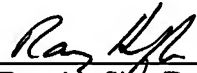
CONCLUSION

In view of the above, Applicant earnestly solicits reconsideration and allowance of all of the pending claims.

Should there be any matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,
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